

**INFRASTRUCTURE COMMITTEE**  
**Tuesday, February 10, 2015 at 5:15 p.m.**  
**City Hall Council Chambers**

**Agenda**

- 1. MDOT Agreement: Civil Rights Assurance**  
**(Agreement Attached)**
- 2. Request: Naming of Street**  
**(Memo Provided by Asst. City Solicitor, Paul Nicklas)**
- 3. Update: Single Stream Recycling**  
**(Memo Provided by Public Works Director, Dana Wardwell)**
- 4. Update: Emera Maine Substation @ Saxl Park**  
**(City Engineer, John Theriault to Provide Update)**
- 5. Update: Broadway Corridor**  
**(City Engineer, John Theriault to Provide Update)**
- 6. Update: Stillwater Avenue, Exit 186**  
**(City Engineer, John Theriault to Provide Update)**
- 7. Discussion: Penobscot River Icing and Flooding**  
**(Memo Provided by City Engineer, John Theriault)**

To: Infrastructure Committee  
From: Engineering Department  
Date: January 22, 2015  
Re: MaineDOT Agreement: Civil Rights Assurance

The Maine Department of Transportation is requiring the City of Bangor to sign an agreement that assures that the City of Bangor will comply with current Civil Rights Acts and Regulations in order to be eligible for federal financial assistance from the Federal Highway Administration (FHWA).

With the signing of this document, the City of Bangor provides the following general assurance with regards to projects that it receives financial support from FHWA through the US Department of Transportation.

*"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from the U.S. DOT, including the FHWA."*

In addition to this general assurance, the City of Bangor will provide the following language in all requests for proposals (RFP's) for services to be completed for the City for projects that are receiving funding through the FHWA.

*"The **City of Bangor**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."*

All contracts signed between the City of Bangor and Contractors for projects to be constructed with funding from FHWA will include Appendix A and E. These appendices provide direction and guidance for the Contractor to comply with the appropriate Civil Rights Acts and regulations in accordance with FHWA requirements.

The Engineering Department requests that the Infrastructure Committee allow the City Manager to sign the enclosed Agreement in order for the City to continue to be eligible for financial assistance from the Federal Highways Administration.

**The United States Department of Transportation (U.S. DOT)**  
**FHWA STANDARD TITLE VI/NONDISCRIMINATION ASSURANCES**

**DOT Order No. 1050.2A**

The **City of Bangor** (herein referred to as the "Recipient") **AGREES THAT**, as a condition of receiving Federal financial assistance from the U.S. Department of Transportation (DOT) through the Federal Highway Administration (FHWA), it is subject to and will comply with the following:

**Statutory/Regulatory Authorities**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Nondiscrimination In Federally-Assisted Programs Of The Department Of Transportation—Effectuation Of Title VI Of The Civil Rights Act Of 1964*);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory citations hereinafter are referred to as the "Acts" and "Regulations," respectively.

**General Assurances**

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

*No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from the U.S. DOT, including the FHWA.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Nondiscrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these nondiscrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

**Specific Assurances**

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its federally assisted programs:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.
2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all Federal Highway Programs and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

*The **City of Bangor**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.*

- 3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.**
4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.
5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.
6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.
7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:
  - a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
  - b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.
8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:
  - a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
  - b. the period during which the Recipient retains ownership or possession of the property.
9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.
10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, the Recipient also agrees to comply (and require any subrecipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the FHWA access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the FHWA. You must keep records, reports, and submit the material for review upon request to the FHWA, or their designees in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The Recipient gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation. This ASSURANCE is binding on the Recipient, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in it programs. The person signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

DATED \_\_\_\_\_

By \_\_\_\_\_  
**Catherine M. Conlow, City Manager**  
**City of Bangor**

Encl.: Appendices A, and C, D, and E

## APPENDIX A TO THE TITLE VI ASSURANCES

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration**, to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor’s noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration**, may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating, or suspending a contract, in whole or in part.

**Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration**, may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

## **APPENDIX C TO TITLE VI ASSURANCES FEDERAL HIGHWAY ADMINISTRATION ASSISTED PROGRAMS**

The following clauses shall be included in all deeds, licenses, leases, permits, or similar instruments entered into by the City of Bangor pursuant to the provisions of Assurance 7(a).

The (grantee, licensee, lessee, permittee, etc., as appropriate) for herself/himself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this (deed, license, lease, permit, etc.) for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee lessee, permittee, etc.) shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination of Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

[Include in licenses, leases, permits, etc.]\*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [licenses, lease, permit, etc.] had never been made or issued.

[Include in deeds]\*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to re-enter said lands and facilities thereon, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of Maine Department of Transportation and its assigns.

The following shall be included in all deeds, licenses, leases, permits, or similar agreements entered into by Maine Department of Transportation pursuant to the provisions of Assurance 7(b).

The (grantee, licensee, lessee, permittee, etc., as appropriate) for herself/himself, his/her personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in case of deeds, and leases add "as a covenant running with the land") that (1) no person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over or under such land and the furnishing services thereon, no person on the grounds of race, color, or national origin shall be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination, and (3) that the (grantee, licensee, lessee, permittee, etc.) shall use the premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.

[Include in licenses, leases, permits, etc.]\*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [license, lease, permit, etc.] had never been made or issued.

[Include in deeds]\*

That in the event of breach of any of the above nondiscrimination covenants, Maine Department of Transportation shall have the right to re-enter said land and facilities thereon, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of Maine Department of Transportation and its assigns.

\* Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to effectuate the purpose of Title VI of the Civil Rights Act of 1964.

## APPENDIX D TO TITLE VI ASSURANCES

### CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by the **City of Bangor** pursuant to the provisions of Assurance 7(b):

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, “as a covenant running with the land”) that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discriminations, (3) that the (grantee, licensees, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, the **City of Bangor** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.\*
- C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, the **City of Bangor** will there upon revert to and vest in and become the absolute property of the City of Bangor.\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

## APPENDIX E TO THE TITLE VI ASSURANCES

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

### **Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. §4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. §324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. §794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. §6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. §471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. Parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. §47123) (prohibits discrimination on the basis of race, color, national origin and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).



530 MAINE AVE.  
BANGOR, MAINE 04401  
TEL: 207/992-4501

PUBLIC SERVICES DEPARTMENT – OPERATION and MAINTENANCE  
Dana R. Wardwell, Director

To: Infrastructure Committee  
From: Dana Wardwell  
Subject: Recycling update  
Date: February 10, 2015

Prior to July 1, 2014 the amount of our recycling tonnage was estimated as we did not weigh product from the curbside recycling truck when it dumped. For the first six months of FY14 we estimated Bangor recycled 468 tons, 234 curbside and 234 at the drop off area. For the same six month period in FY15, Casella has weigh slips totaling 363 tons from curbside and 203 tons from drop off for a total of 566 tons

On January 13, 2015 Jim Dunning sent councilors a memo stating that based on FY15 PERC deliveries and FY15 recycling weigh slips he estimated curbside recycling had increased 94%. Based on FY 14 estimated recycling tonnage, curbside recycling increased 55%. Both estimates are just that, estimates. It is fair to say curbside recycling has increased between 55% and 94% with the implementation of single stream recycling.

While the increase in the amount of recycling is nice to know, savings to the budget are realized by reduced tonnage going to PERC. Residential tons delivered to PERC for the first 6 months of FY15 decreased 175 ton from the first 6 month deliveries in FY14. Since FY15 commercial tons delivered to PERC for this same period increased 96 tons it is fair to say Single Stream Recycling reduced the tonnage to PERC by at least 175 tons for a savings of at least \$13,613 for the first six months and is projected to save at least \$27,250 in PERC tipping fees for FY 15. Couple this with the significant program savings realized when we implemented single stream recycling and it is obvious Bangor's Single Stream recycling program has been very successful.

In order to further decrease residential PERC deliveries Jim Dunning and my-self have discussed ways to increased recycling. Two weeks, Earth Day week beginning April 20 and national recycling week in November afford opportunity to do week long media promotions. Social media, city web site, government channel, Community Connector signs and Jim working with the schools are all low cost options to promote recycling. Jim and I will both be in attendance to answer any questions you may have and entertain any suggestions you may have to increase recycling.

To: Infrastructure Committee  
From: Engineering Department  
Date: January 22, 2015  
Re: Emera Substation at Saxl Park Update

For the last several months, Emera Maine has been meeting with the Saxl Park Committee to develop a location within the Park for a new substation to replace the existing substation behind the Bangor Water District. A new substation is necessary for several reasons including the age of the existing substation, (over 50 years old), need for additional electric capacity to adequately service the hospital expansion, and more reliable service for the east side neighborhood.

Both parties have worked well together and believe that they have found a location on the southeast side of the Park that can provide Emera with the space they need for a new substation while minimizing the overall impacts to the Park.

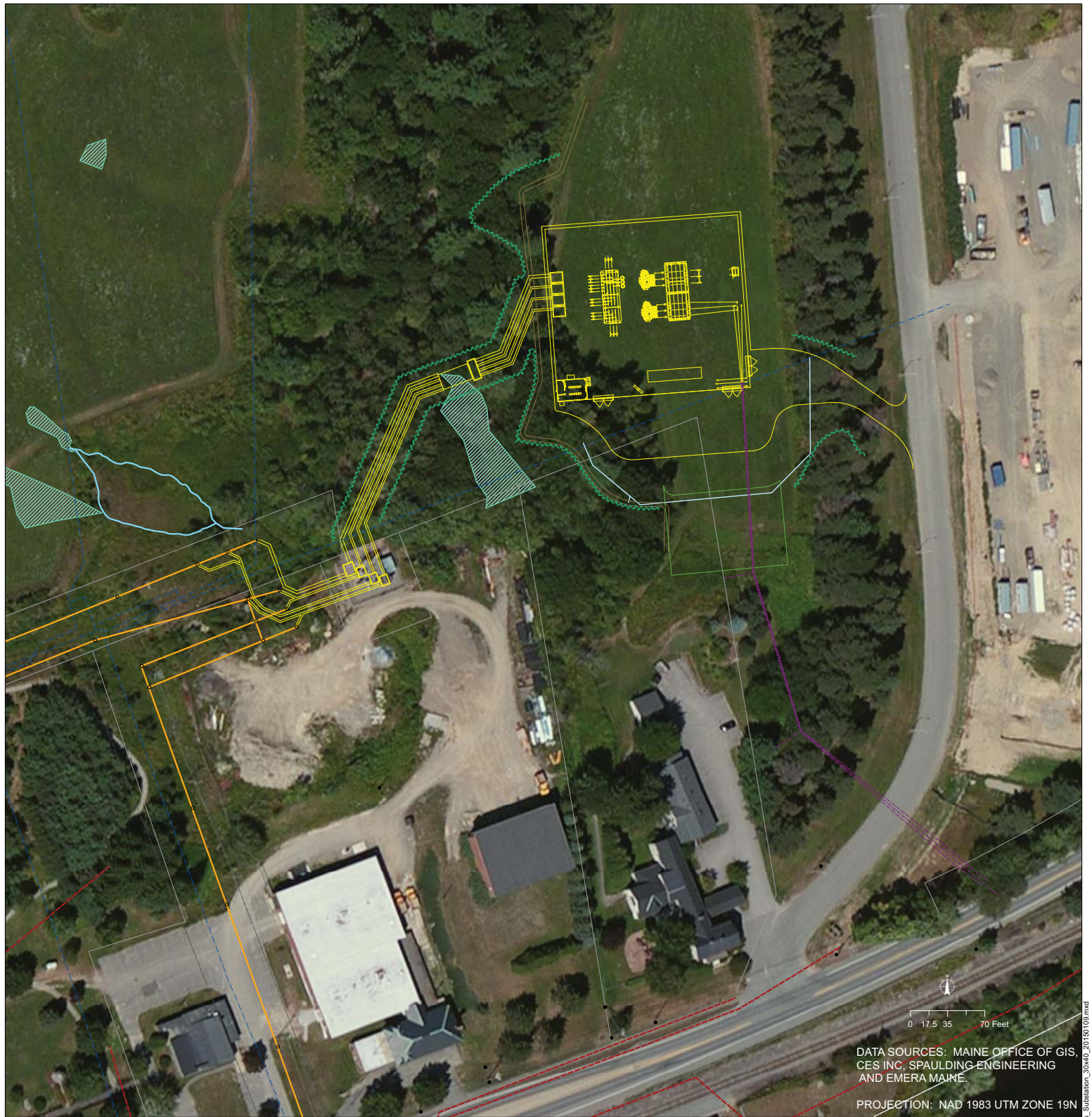
Emera has also committed to providing financial support to the Park to help with future improvements and maintenance. A summary of Emera's efforts to minimize impacts to the Park as well as their mitigation plan is included with this memo.

# Impact Minimization Elements

- Placement in southeast corner of the Park
- Substation layout for best fit within natural terrain
- Site design to reduce elevation and impact with cut and fill
- Compact substation design to reduce overall footprint
- Underground distribution line connections
- Underground ducts located to utilize existing trails, replace foot bridge, follow natural terrain and avoid wetland impact and tree clearing
- Planted vegetative screening
- Strategic use of existing vegetative screening and preservation of old growth trees
- Natural re-vegetation of slopes
- Colored composite poles near the substation site
- Compact transmission line configuration and covered conductor
- Re-use of existing line corridors & substation site for line interconnectivity
- No expansion of Mount Hope ROW corridor

# Mitigation Elements

- Reroute trails around site
- Provide \$10,000 for new signage, kiosks and gardens
- Establish \$100,000 perpetual maintenance fund for annual mowing and hay removal
- Provide \$15,000 for SPC to use to support long-term park protection
- Provide a letter of support for legislative action related to park protection



- |  |                          |  |                                       |
|--|--------------------------|--|---------------------------------------|
|  | Transmission             |  | New Distribution                      |
|  | Meadow Buffer            |  | Parcels                               |
|  | New Tree Line            |  | Wastewater & Storm Lines              |
|  | Substation & Access Road |  | Relocated Bangor Water District Lines |
|  | Stream (Approximate)     |  | Bangor Water District Lines           |
|  | New Trail                |  | Existing Right-of-Way                 |
|  | Drainage Swale           |  | Delineated Wetlands                   |
|  | New Poles                |  |                                       |
|  | Existing Poles           |  |                                       |

**PROPOSED  
WATERWORKS SUBSTATION  
& NEW ACCESS ROAD  
EMERA MAINE**



DATE: JANUARY 2015

To: Infrastructure Committee  
From: Engineering Department  
Date: January 22, 2015  
Re: Discussion Concerning River Ice on the Penobscot

Staff from the City of Bangor has recently attended a presentation put on by the U.S. Geological Survey (USGS) concerning river ice and susceptibility to flooding due to winter and spring rain events, snow melt, and ice jams. Of particular interest for Bangor is the recent removal of the Veazie Dam and how this will impact the river flow with ice conditions during winter and spring rain events.

Based on discussions at the attended seminar, the removal of the Veazie dam may increase the amount of supply ice to the Bangor area which can result in greater probability of ice jams occurring within our portion of the Penobscot River. Historical river stage data that has been utilized in the past to forecast potential flooding is no longer reliable with the removal of the Veazie dam.

City Departments will be contacting the Coast Guard to discuss scheduling for ice breaking of the river to reduce the potential for ice jams. The City will also be putting a renewed effort on developing a system for better communicating with downtown businesses that are more at risk to damages resulting from river flood events.